

We claim:

- 1 1. A method comprising:
2 dynamically discovering a set of subnets, the set of subnets having visibility of a
3 transmission; and
4 selecting a network element to perform the transmission, the network element
5 being in one of the set of subnets.
- 1 2. The method of claim 1 wherein the selecting the network element comprises:
2 ordering a set of network addresses; and
3 selecting one of the set of network addresses, the one corresponding to the
4 network element.
- 1 3. The method of claim 1 wherein the selecting the network element comprises:
2 indicating a preference value for at least one network element in each of the set of
3 subnets; and
4 determining the network element to have the preference value most desired in the
5 set of subnets.
- 1 4. The method of claim 1 wherein the selecting the network element comprises
2 determining the network element to have a set of data to be transmitted for the
3 transmission.
- 1 5. The method of claim 1 further comprising maintaining a state of the transmission
2 for each member of each of the set of subnets.

1 6. A method comprising:
2 dynamically establishing a set of subnets as a domain;
3 selecting a network element to transmit a set of data to the domain; and
4 maintaining a status of transmission.

1 7. The method of claim 6 wherein the selecting the network element comprises:
2 ordering a set of network addresses; and
3 selecting one of the set of network addresses, the one corresponding to the
4 network element.

1 8. The method of claim 6 wherein the selecting the network element comprises:
2 indicating a preference value for at least one network element in each of the set of
3 subnets; and
4 determining the network element to have the preference value most desired in the
5 set of subnets.

1 9. The method of claim 6 wherein the selecting the network element comprises
2 determining the network element to have the set of data to be transmitted for the
3 transmission.

1 10. The method of claim 6 further comprising:
2 determining the status of transmission for at least one target in the domain to be
3 incomplete; and
4 selecting a second network element to complete transmitting to the at least one
5 target, the second network element having the set of data locally.

1 11. A method comprising:

2 transmitting a discovery message to each of a number of representatives of

3 subnets in a network;

4 receiving responses to the discovery messages from each of the number of

5 representatives of the subnets;

6 creating a number of alias domains in the network based on the responses to the

7 discovery messages;

8 for each alias domain in the network, assigning one of the number of

9 representatives of the subnets whose subnet is part of the alias domain as

10 the domain representative.

1 12. The method of claim 11 wherein assigning one of the number of representatives of

2 the subnets whose subnet is part of the alias domain as the domain representative

3 comprises:

4 ordering a set of network addresses; and

5 selecting one of the set of network addresses, the one of the set of network

6 addresses corresponding to the one of the number of representatives of the

7 subnets.

1 13. The method of claim 11 wherein assigning one of the number of representatives of

2 the subnets whose subnet is part of the alias domain as the domain representative

3 comprises:

4 indicating a preference value for each of the number of representatives; and

5 determining the one of the number of subnet representatives to have the

6 preference value most desired of the number of representatives.

1 14. The method of claim 11 wherein assigning one of the number of representatives of
2 the subnets whose subnet is part of the alias domain as the domain representative includes
3 determining one of the number of representatives of the subnets to have a set of data to be
transmitted throughout the network.

1 15. A system comprising:
2 a server to dynamically establish a domain from a first and second subnet, to
3 select a representative for the domain, and to delegate a transmission of a
4 set of data to the representative;
5 a first network element connected to the server, the first network element having
6 been selected as the representative to transmit the set of data to a set of
7 targets in the domain, and to maintain a status of the transmission; and
8 a second network element connected to the server and the first network element,
9 the second network element to forward data between the first and second
10 subnet.

1 16. The system of claim 15 wherein the server to select the representative comprises
2 the server to order a set of network addresses, the set of network addresses corresponding
3 to a set of network elements in the first and second subnet, and to select one of the set of
4 network addresses.

1 17. The system of claim 15 wherein the server to select the representative comprises
2 the server to determine the first network element to have the set of data.

1 18. The system of claim 15 further comprising a third network element to resume
2 transmission of the set of data if the first network element fails to complete the
3 transmission of the set of data, the third network element being in the domain and having
4 the set of data locally.

1 19. The system of claim 15 further comprising the server to maintain a status of the
2 transmission.

1 20. The system of claim 15 wherein the first network element comprises a domain
2 cache to indicate an alias domain corresponding to the domain.

1 21. A machine-readable medium that provides instructions, which when executed by a
2 set of processors, cause said set of processors to perform operations comprising:
3 determining a set of subnets to receive a set of data;
4 dynamically establishing the set of subnets as a domain;
5 selecting a representative for the domain; and
6 indicating to the representative to transmit the set of data.

1 22. The machine-readable medium of claim 21 wherein the selecting the
2 representative comprises:
3 ordering a set of network addresses; and
4 selecting one of the set of network addresses, the one corresponding to the
5 representative.

1 23. The machine-readable medium of claim 21 wherein the selecting the
2 representative comprises:
3 indicating a preference value for at least one network element in each of the set of
4 subnets; and
5 determining the representative to have the preference value most desired in the set
6 of subnets.

1 24. The machine-readable medium of claim 21 wherein the selecting the
2 representative comprises determining the representative to have the set of data to be
3 transmitted.

1 25. The machine-readable medium of claim 21 that provides instructions, which when
2 executed by the set of processors, cause said set of processors to perform operations
3 further comprising maintaining a status of transmission of the set of data.

1 26 The machine-readable medium of claim 21 that provides instructions, which when
2 executed by the set of processors, cause said set of processors to perform operations
3 further comprising:
4 determining the status of transmission to be incomplete; and
5 selecting a second representative to complete transmission of the set of data.

1 27. A machine-readable medium that provides instructions, which when executed by a
2 machine, cause said machine to perform operations comprising:
3 receiving a first message indicating a transmission job;
4 determining if the machine is in a domain for the transmission job;

5 if the machine is not in the domain for the transmission job, then transmitting a
6 second message indicating the machine's subnet; and
7 if the machine is in the domain for the transmission job, then transmitting the
8 second message indicating the domain.

1 28. The machine-readable medium of claim 27 that provides instructions, which when
2 executed by the machine, cause said machine to perform operations further comprising:
3 receiving an indication of a source of a set of data for the transmission job;
4 accessing the set of data;
5 receiving an indication of a set of targets for the set of data;
6 notifying the targets of the transmission job;
7 transmitting the set of data to the set of targets; and
8 transmitting an indication of a status of the transmission job to a server.

1 29. The machine-readable medium of claim 27 that provides instructions, which when
2 executed by the machine, cause said machine to perform operations further comprising:
3 receiving a notification of the transmission job;
4 determining if the machine is one of a set of targets for the transmission job;
5 listening for a set of data of the transmission job; and
6 notifying a network element when the set of data has been received, the network
7 element transmitting the set of data.

1 30. The machine-readable medium of claim 27 that provides instructions, which when
2 executed by the machine, cause said machine to perform operations further comprising:
3 receiving a set of data of the transmission job;

4 indicating to a transmitting network element to modify a rate the set of data is
5 being transferred if the rate is too slow or too fast for the machine; and
6 indicating to the transmitting network element to retransmit a subset of the set of
7 data if the subset was missed.